

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~Peptides~~ A peptide of general formula I
Y¹-X¹-Ser-X²-Ser-X³-X⁴-Asn-Phe-X⁵-X⁶-X⁷-Y²-D-Tyr-X⁸-Val-X⁹-Glu-X¹⁰
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

X¹¹-X¹²-Ser-X¹³-X¹⁴-Asp (I),
20 21 22 23 24 25

in which

Y¹ is Phe, Lys, Cys and Orn, and

Y² is Asp, Cys and Glu, and Y¹ also has the meaning of Y², and Y² has the meaning of Y¹, ~~whereby~~ wherein Y¹ and Y² are linked to one another via a side chain or a β -turn mimetic agent, and

X¹⁻¹⁴ represents any amino acid, which can be connected to one another via side chains.

2. (Currently Amended) ~~Peptides~~ A peptide of general formula I,
according to claim 1, in which

Y¹ is Phe, Lys, Cys and Orn, and

Y² is Asp, Cys and Glu, and Y¹ also has the meaning of Y², and Y² has the meaning of Y¹, ~~whereby~~ wherein Y¹ and Y² are linked to one another via a side chain or a β -turn mimetic agent, and

X¹⁻¹⁴ is Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn, Gln, Asp, Glu, Lys, Arg, His, Orn, Cit, β -Ala, homo-Cys, homo-Ser, Gaba, Can, β -CN-Ala, OH-Pro, OH-Lys, N-Met-Lys, Met-His, desmosine and djenkolic acid, which can be connected to one another via side chains.

3. (Currently Amended) ~~Peptides~~ A peptide of general formula I,

according to ~~claims 1-2~~ claim 1, in which

Y¹ is Phe, Lys, Cys and Orn, and

Y² is Asp, Cys and Glu, and Y¹ also has the meaning of Y², and Y² has the meaning of Y¹, ~~whereby~~ wherein Y¹ and Y² are linked to one another via a side chain or a B-turn mimetic agent, and

X¹⁻¹⁴ is Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn, Gln, Asp, Glu, Lys, Arg, His, Orn, and Cit, which can be connected to one another via side chains.

4. (Currently Amended) ~~Peptides~~ A peptide of general formula I, according to ~~claims 1-3~~ claim 1, in which

Y¹ is Lys, Cys and Orn, and

Y² is Asp, Cys, and Glu, and Y¹ also has the meaning of Y², and Y² has the meaning of Y¹, ~~whereby~~ wherein Y¹ and Y² are linked to one another via a side chain, and

X⁶ and X⁸ are Leu,

X⁷ is Val and

X¹⁻⁵ and X⁹⁻¹⁴ are Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn, Gln, Asp, Glu, Lys, Arg, His, Orn and Cit, whereby if

X⁴ stands for Glu, and X¹⁰ stands for Lys, the latter are linked to one another via a side chain.

5. (Currently Amended) ~~Peptides~~ A peptide of general formula I, according to ~~claims 1-4~~ claim 1, in which

Y¹ is Lys, and

Y² is Asp, and Y¹ also has the meaning of Y², and Y² has the meaning of Y¹, ~~whereby~~ wherein Y¹ and Y² are linked to one another via a β -turn mimetic agent, and

X¹⁻¹⁴ is Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn,

Gln, Asp, Glu, Lys, Arg, His, Orn and Cit, whereby if X⁴ stands for Glu and X¹⁰ stands for Lys, the latter are linked to one another via a side chain.

6. (Currently Amended) ~~Compounds~~ A compound of general formula I, according to ~~claims 1-5~~ claim 1, in which

Y¹ is Lys, and

Y² is Asp, and Y¹ also has the meaning of Y², and Y² has the meaning of Y¹, ~~whereby~~ wherein Y¹ and Y² are linked to one another via a β -turn mimetic agent, and

X⁶ and X⁸ are Leu,

X⁷ is Val,

X¹⁻⁵ and X⁹⁻¹⁴ are Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn, Gln, Asp, Glu, Lys, Arg, His, Orn and Cit, whereby if X⁴ stands for Glu, and X¹⁰ stands for Lys, the latter are linked to one another via a side chain.

7. (Currently Amended) ~~Peptides~~ A peptide of general formula I, according to ~~claims 1-6~~ claim 1, of the structures

Lys-Ile-Ser-Val-Ser-Tyr-Asp-Asn-Phe-Ala-Leu-Val-Asp-D-Tyr

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Leu-Val-Phe-Glu-Arg-Thr-Lys-Ser-Asp-Thr-Asp,

15 16 17 18 19 20 21 22 23 24 25

~~whereby~~ wherein the Lys in 1-position is linked with the Asp in 13-position via a side chain,

Lys-Ile-Ser-Val-Ser-Tyr-Glu-Asn-Phe-Ala-Leu-Val-Asp-D-Tyr

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Leu-Val-Phe-Glu-Lys-Thr-Lys-Ser-Asp-Thr-Asp,

15 16 17 18 19 20 21 22 23 24 25

~~whereby~~ wherein the Lys in 1-position is linked with the Asp in 13-position,
and Glu in 7-position is linked with Lys in 19-position via a side chain, and

Lys-Ile-Ser-Val-Ser-Tyr-Glu-Asn-Phe-Ala-Leu-Val-Asp-D-Tyr

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Leu-Val-Phe-Glu-Lys-Thr-Lys-Ser-Asp-Thr-Asp,

15 16 17 18 19 20 21 22 23 24 25

8. (Currently Amended) A peptide of general formula I, according to ~~one of claims 1-7~~
claim 1, as a pharmaceutical active ingredient.

9. (Currently Amended) A pharmaceutical composition ~~that contains one or~~
~~more peptides of general formula I, comprising a peptide according to claims 1-7~~ claim 1, ~~together with~~
~~and at least one pharmaceutically suitable solutions and vehicles~~ solution or vehicle.

10. (Currently Amended) ~~A composition that can be administered~~
~~intravenously, subcutaneously, orally or transdermally that contains one or more peptides of general~~
~~formula I, according to claims 1-7, together with pharmaceutically suitable solutions, vehicles and~~
~~additives~~ The composition of claim 9, wherein said composition is in a form suitable for
intravenous, subcutaneous, oral or transdermal administration.

11. (Currently Amended) ~~Use of the peptides according to claims 1-8 and their~~
~~compositions according to claims 9 and 10 or mixtures thereof, for the production of a~~
~~pharmaceutical agent for treating thromboses, unstable angina, arteriosclerosis, prevention of~~

~~a re-occlusion of vessels after PTCA/PTA or after thrombolysis for treating a myocardial infarction or for preventing blood clotting in the case of hemodialysis~~ A method for treating or preventing thrombosis, unstable angina, arteriosclerosis, reocclusion of a vessel after PTCA/PTA, reocclusion of a vessel after thrombolysis for treating a myocardial infarction, or blood clotting comprising administering to a patient in need thereof a therapeutically effective amount of a peptide of claim 1.

12. (New) A peptide of general formula I

$Y^1-X^1-Ser-X^2-Ser-X^3-X^4-Asn-Phe-X^5-X^6-X^7-Y^2-D-Tyr-X^8-Val-X^9-Glu-X^{10}$

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

$X^{11}-X^{12}-Ser-X^{13}-X^{14}-Asp$ (I),

20 21 22 23 24 25

in which

Y^1 is Phe, Lys, Cys and Orn, and

Y^2 is Asp, Cys and Glu, and Y^1 also has the meaning of Y^2 , and Y^2 has the meaning of Y^1 , wherein Y^1 and Y^2 are linked to one another via a side chain or a β -turn mimetic agent to form a cyclic portion and a linear portion,

X^{1-14} represents any amino acid, which can be connected to one another via side chains,

wherein amino acids 1-6, 8-13 and 14-25 form a β -folded-sheet structure.

13. (New) The peptide of claim 12 wherein said cyclic and linear portions bind to thrombin.